

therefrom a reflectance or transmission spectrum for one or more of the spatial locations in the pattern;

cont. 1
a translation mechanism for relatively translating the one or more films with respect to the spectrometer; and

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a processor for (a) obtaining from the spectrometer reflectance or transmission spectra for a plurality of one dimensional patterns of spatial locations along the one or more films; (b) aggregating these reflectance or transmission spectra to obtain reflectance or transmission spectra for a two dimensional area on the one or more films; and (c) determining therefrom one or more properties of the one or more films.

Q2
4. (Once Amended) The system of claim 1 in which the translation mechanism is configured to move a platform supporting the one or more films relative to the spectrometer or the spectrometer and light source.

5. (Once Amended) The system of claim 1 in which the translation mechanism is configured to move the spectrometer or spectrometer and light source relative to a platform supporting the one or more films.

6. (Once Amended) The system of claim 1 where the processor is configured to determine the one or more properties of the one or more films at one or more desired measurement locations.

Q3
23. (Once Amended) The system of claim 1 wherein the one-dimensional imaging spectrometer is configured to receive light reflected from or transmitted through a plurality of one dimensional patterns of spatial locations on the one or more films, and determining for each such pattern a reflectance or transmission spectrum for one or more of the spatial locations in the pattern, the spectrometer configured to provide resolution of 1 mm or better along both first and second spatial dimensions.

24. (Once Amended) A method for measuring one or more properties of one or more films comprising:

directing light to the one or more films;

receiving light reflected from or transmitted through a one dimensional pattern of spatial locations on the one or more films, and determining therefrom a reflectance or transmission spectrum for one or more of the one dimensional spatial locations in the pattern;

obtaining reflectance or transmission spectra for additional one dimensional patterns of spatial locations on the one or more films;

aggregating these reflectance or transmission spectra to obtain reflectance or transmission spectra for a two dimensional area on the one or more films, and

determining therefrom one or more properties of the one or more films.

26. (Once Amended) The method of claim 24 further comprising determining the one or more properties of the one or more films at one or more desired measurement locations.

35. (Once Amended) The method of claim 24 further comprising obtaining reflectance or transmission spectra for successive one dimensional patterns of contiguous spatial locations along the one or more films in the shape of a line.

39. (Once Amended) The method of claim 38 further comprising receiving light reflected from or transmitted through a plurality of one dimensional patterns of spatial locations on the one or more films, and determining for each such pattern a reflectance or transmission spectrum for one or more of the one dimensional spatial locations in the pattern.

40. (Once Amended) A system for measuring one or more properties of one or more films comprising:

means for directing light to the one or more films;

means for receiving light reflected from or transmitted through a one dimensional pattern of spatial locations on the one or more films, and determining therefrom a reflectance or transmission spectrum for one or more of the spatial locations in the pattern;

means for relatively translating the one or more films with respect to the spectrometer;
and

means for (a) obtaining from the spectrometer reflectance or transmission spectra for a plurality of one dimensional patterns of spatial locations along the one or more films; (b) aggregating these reflectance or transmission spectra to obtain reflectance or transmission spectra for a two dimensional area on the one or more films; and (c) determining therefrom one or more properties of the one or more films.

41. (Once Amended) A method for measuring one or more properties of one or more films comprising:

a step for directing light to the one or more films;

a step for receiving light reflected from or transmitted through a one dimensional pattern of spatial locations on the one or more films, and determining therefrom a reflectance or transmission spectrum for one or more of the one dimensional spatial locations in the pattern;

a step for obtaining reflectance or transmission spectra for additional one dimensional patterns of spatial locations on the one or more films;

a step for aggregating these reflectance or transmission spectra to obtain reflectance or transmission spectra for a two dimensional area on the one or more films, and

a step for determining therefrom one or more properties of the one or more films.

[Kindly add new claims 42-63 as follows:]

42. (New) The system of any of claims 1 or 40 wherein the one or more films comprise a film stack.

43. (New) The system of claim 42 wherein the film stack is a vertical film stack.

44. (New) The method of any of claims 24 or 41 wherein the one or more films comprise a film stack.

45. (New) The method of claim 44 wherein the film stack is a vertical film stack.

46. (New) The system of claim 40 wherein the fourth means is configured to determine the one or more properties of the one or more films at one or more desired measurement locations.

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47. (New) The method of claim 41 further comprising determining the one or more properties of the one or more films at one or more desired measurement locations.

48. (New) The system of any of claims 6 or 46, wherein the one or more measurement locations are directed to different features of a patterned film.

49. (New) The method of any of claims 26 or 47, wherein the one or more measurement locations are directed to different features of a patterned film.

50. (New) The system of any of claims 6 or 46, wherein the one or more desired measurement locations are on a surface, and the reflected or transmitted light is nominally perpendicular to the surface.

51. (New) The method of any of claims 26 or 47, wherein the one or more measurement locations are on a surface, and the reflected or transmitted light is nominally perpendicular to the surface.

52. (New) The system of any of claims 6 or 46, wherein the one or more desired measurement locations are on a surface, and the reflected or transmitted light is at angle to the surface.

53. (New) The method of any of claims 26 or 47, wherein the one or more desired measurement locations are on a surface, and the reflected or transmitted light is at an angle to the surface.

54. (New) The system of any of claims 6 or 46, wherein the reflected or transmitted light is unpolarized.

55. (New) The method of any of claims 26 or 47, wherein the reflected or transmitted light is unpolarized.

56. (New) The system of any of claims 6 or 46, wherein the reflected or transmitted light is polarized.

57. (New) The method of any of claims 26 or 47, wherein the reflected or transmitted light is polarized.

58. (New) The system of any of claims 1 or 40, wherein the one or more properties relate to metal leads.

59. (New) The method of any of claims 24 or 41, wherein the one or more properties relate to metal leads.

60. (New) The system of any of claims 1 or 40, wherein the one or more properties relate to regions between metal leads.

61. (New) The method of any of claims 24 or 41, wherein the one or more properties relate to regions between metal leads.

62. (New) The system of any of claims 1 or 40, which comprises a reflectometry system.

63. (New) The system of any of claims 1 or 40, which comprises an ellipsometry system.